REMARKS

By way of the present response, independent claims 1, 8 and 9 have been amended and claim 3 has been canceled without prejudice or disclaimer. Claims 1 has been amended to include features from original claim 3. A similar amendment has been made to claims 8 and 9. Claims 1, 2 and 4-9 currently are pending.

It is noted that the Office Action does not acknowledge the Claim for Convention Priority under 35 U.S.C. § 119, filed on March 30, 2001. It is respectfully requested that the Examiner acknowledge this claim and indicate whether the certified copy of the priority document has been received.

Favorable reconsideration and re-examination of all pending claims is respectfully requested in view of the following remarks:

The Written Description Is Adequate Under 35 U.S.C. § 112, First Paragraph

On pages 2-3 of the Office Action, claims 1-9 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. This rejection is respectfully traversed.

The Office Action asserts that the claims allegedly contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. More particularly, the Examiner states that he fails to understand the vector table on page 8 and Figures 5-11 and that Figures 5-11 seem to show a thinning process rather than an embedding process. Additionally, the Examiner requests an explanation with regard to the second converter.

In response, Applicant traverses any allegation concerning inadequacy of the originally filed written description under Section 112, first paragraph, and respectfully asserts that an adequate written description of the claimed invention was present when the application was filed. With respect to the concerns expressed by the Examiner on page 2 of the Office Action, Applicant provides the following in connection with the claim terms and the examples described in the original specification and drawings.

The "second converter" recited in claim 1 performs the conversion of bit map data in "input bit map image data" positioned around a line image of a "line image region" extracted in the input image data, as shown in example of Figure 10 for a straight line (see the specification, page 8, the fifth line from the bottom to page 9, the fourth line from the bottom). That is, the second converter recited in claim 1 operates to perform conversion in a line image region (e.g., a vertical area of a width of five pixels in the examples shown in Figures 5 and 8) according to a side where each pixel in the pixels (i.e., the pixels in the input bit map image) exists relative to the vector data (i.e., the line image defined by the vector data) and according to the bit map data of pixels around the pixel. Figure 10 shows an exemplary result of such conversion. In this example, pixels in the left side are converted according to data of the peripheral pixels of that side, while pixels in the right side are converted to different pixel data. Thus, a boundary can be represented clearly in the image after the synthesis, for example, as shown in Figure 11.

With respect to the exemplary Table 1 on page 8 of the specification, this table and the data contained in it are described, for example, starting at page 7, line 18 to page 8, line 11. Table 1 includes vector data for a number, N, of straight lines regarding the start point (bx,by), end point (ex,ey), line width (lw) and the region approximated based on the bi-level image. In the example process of pages 8 to 9, these data are used to detect a pixel position (i.e., a side relative to the straight line at which the object pixel exists).

The Office Action also states "applicant also in Figure 3 teaches embedding pixels in the approximation region with regard to the functionality of the second converter.

Nonetheless, the figures 5-11 seem [to show] a thinning process rather than an embedding process, and no data seems to be embedded." (See page 2, Section 1, lines 13-16.) Applicant respectfully disagrees with these allegations. While Figure 7 shows an example in which a first converter performs a thinning process, not every Figure 5 to 11 relate only to a thinning process. For instance, as explained above, a second converter performs the conversion on the line image area as shown in Figure 10, and this is represented as "embed ..." in Figure 3. It is respectfully submitted that one of ordinary skill in the art would have understood this concept from the description in the original specification

For at least these reasons, it is respectfully submitted that the Applicant's specification and drawings as originally filed present an adequate written description of the claimed invention such that a person skilled in the art would recognize that the inventor had possession of the invention. Applicant submits that the mere allegations in the Office Action of vagueness with respect "bit map data around the vector data," what things "seem" to be, and a lack of understanding of the particular concepts described do not constitute a factual assessment, which would be required in an inquiry as to adequacy of the written description under 35 U.S.C. § 112, first paragraph. See MPEP § 2163. As such, it is respectfully submitted that the rejection of claims 1-9 under Section 112 is improper and should be withdrawn.

The Hiroyuki et al. Publication Does Not Disclose All Claimed Features

The Office Action also includes a rejection of claims 1-9 under 35 U.S.C. § 102(b) as allegedly being anticipated by Hiroyuki et al. (Japanese patent publication no. 05-020495). This rejection is respectfully traversed.

Independent claim 1 recites that a image processor comprises, among other features, "a second converter which converts bit map data of pixels in the input bit map image data around the line image of the line image region according to a side where a pixel in the pixels exists relative to the line image region defined by the vector data and according to the bit map data of pixels around the line image region." In connection with these claimed features, the Office Action, with reference to paragraph 0058 of the Hiroyuki et al. document, states "Hiroyuki et al. discloses image data, which is the bit map data herein, around the line image data as shown in figure 11 remains as it is." It is respectfully submitted, however, that the Hiroyuki et al. publication does not disclose the claimed second converter. For instance, it is not disclosed in English language abstract and Figure 11 of Hiroyuki et al. that a second converter operates to convert bit map data of pixels in the input bit map image data around the line image of the line image region according to a side where a pixel in the pixels exists relative to the line image region defined by the vector data and according to the bit map data of pixels around the line image region. Indeed, the Examiner states that paragraph 0058 of Hiroyuki et al. mentions that image data around the line image data remains as it is (i.e.,

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assuming that the Examiner's interpretation of the Japanese text of paragraph 0058 is

accurate).

For at least these reasons, it is respectfully submitted that the Hiroyuki et al. document

fails to anticipate the combination of features recited in independent claim 1.

Similar distinctions are recited in independent claims 8 and 9, which are respectively

directed to a method of image processing and a storage medium storing a program. For

instance, each of claims 8 and 9 recite a process of "converting bit map data of pixels in the

input bit map image data around the line image of the line image region according to a side

where a pixel in the pixels exists relative to the line image region defined by the vector data

and according to the bit map data of pixels around the line image region." For reasons similar

to those given above with respect to the operation of the second converter of independent

claim 1, claims 8 and 9 are allowable.

All of the remaining claims 2 and 4-7 depend from independent claim 1, and recite

additional advantageous features that further distinguish over the Hiroyuki et al. publication.

As such, all presently pending claims are considered allowable.

In light of the foregoing, Applicant respectfully requests reconsideration and

withdrawal of the outstanding rejections so that the present application can pass the issuance.

Should any residual issues exist, the Examiner is requested to contact the undersigned so that

the issuance of this patent will not be further delayed.

Respectfully submitted,

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Date: June 23, 2004

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